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10/808,606

03/25/2004

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EXAMINER

ABDIN, SHAHEDA A

ART UNIT

PAPER NUMBER

2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/808,606 | Applicant(s) TAKAHASHI, TSUKASA | |
| | Examiner Shaheda A. Abdin | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 07/06/2007 has been entered and considered by examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekiya et al. (US 7039325) in view of Maxham et al. (US Patent No: 6411407).

(1) Regarding claim 1:

Sekiya et al. (in Fig.1) discloses an optical transmission system for performing WDM optical transmission, comprising an optical transmission device (10a) and an optical reception device (10b) (column 2, lines 61-67);

wherein said optical transmission device (10a) includes,

an optical-supervisory-signal generation unit (11-1, Fig. 2) which generates a

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first optical supervisory signal (OSC1) on a side of main signals (signals from 16-1), an optical transmission line (3a) and a second optical supervisory signal (OSC2) on a side of the main signals and used for supervisory control of optical communication (column3, lines 38-56),

an optical multiplexing unit (WDM coupler C1) which generates a wavelength-multiplexed signal by optically multiplexing together simultaneously the main signals (signals from 16-1) and the first and second supervisory signals (OSC1 and OSC2), and transmits the wavelength-multiplexed signal onto said optical transmission line (3a) (column 3, lines 38-56, Fig. 2) ;

and optical reception (10b) device includes,

An optical demultiplexing unit (C3) which receives said wavelength-multiplexed signal, and optically demultiplexes the wavelength-multiplexed signal into said main signals (signal towards 16-2 considered as said main signals), said first optical supervisory signal (signal towards 15 considered as said first supervisory signal), and said second optical supervisory signal (signal towards drive control means considered as said second supervisory signal),

an optical-supervisory-signal reception unit (stop means 15), based on the first optical supervisory signal (OSC1), and performs supervisory control of optical communication based on second optical supervisory signal (OSC2) (column 3, lines 58-67).

Note that Sekiya teaches a main signal, optical supervisory-signal reception unit, first optical supervisory signal and a second optical supervisory signal

but Sekiya does not teach (a) the first supervisory signal being arranged on a shorter-wavelength side and containing information for use in determination of continuity transmission line and a second optical supervisory signal arranged on a longer-wavelength side; (b) an optical-supervisory-signal reception unit that determines whether or not said optical transmission line is optically continuous, based on the first optical supervisory signal.

However Maxham in the same field of endeavour teaches (a) a first supervisory signal (signal from module 14a1 is considered as first supervisory signal) being arranged on a shorter-wavelength side (530-1545nm, wavelength side) of main signals and containing information for use in determination of continuity (column 4, lines 51-66 and fig. 3) transmission line (26) and a second optical supervisory signal (signal from module 14 a2, is considered as second supervisory signal see fig. 3) arranged on a longer-wavelength side (1545-1560 nm, wavelength side).

Maxham teaches (b) an optical-supervisory-signal reception unit (e.g 14a1) that determines whether or not said optical transmission line is optically continuous, based on the first optical supervisory signal (in fig. 3, "pass-thru" lines, interconnecting the two modules and generated optical supervisory channel wavelength and added to the multi-wavelength WDM composite at the input of the second stage of the amplifier 13b using a wavelength multiplex filter (A) because the supervisory channel is terminated and generated at every network element that means , degradations or failure caused by passing through the low performance wavelength region of the amplifier) . (column 4,

lines 1-10, lines 51-66, fig. 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of a first supervisory signal being arranged on a shorter-wavelength side and containing information for use in determination of continuity and a second optical supervisory signal arranged on a longer-wavelength side; an optical-supervisory-signal reception unit that determines whether or not said optical transmission line is optically continuous as taught by Maxham into the optical transmission system of Sekiya so that (a) the first supervisory signal could be arranged on a shorter-wavelength side which containing information for determining the continuity of transmission line and a second optical supervisory signal arranged could be arranged on a longer-wavelength side of the main signals and used for supervisory control of optical communication; (b) an optical-supervisory-signal reception unit that could be determined whether or not said optical transmission line is optically continuous, based on the first optical supervisory signal. In this configuration the system would provide a reliable transmission with reduced cost (Maxham, column 2, lines 5-10).

(2) Regarding claim 3:

Claim 3 is similar to claim 1. The limitation of claim 3 is differed from claim 1 is bellow and teaches by Maxham a third optical supervisory signal (14a) and fourth optical supervisory signal (28 a) (column 5, lines 15-40).

4. Claims 2,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seykiya in view of Maxham as applied to claim 1 above, and further in view of Kobayashi et al. (US Pub. 20020114060 A1).

(1) Regarding claim 2 :

Note the discussion above in claim 1. Sekiya teaches first optical supervisory signal generation unit and Maxham teaches the transmission line continuity, but both Sekiya and Maxham do not teach clock signal information and APSD.

However, Kobayashi in the same field of endeavor teaches clock signal information (CLK illustrated in Fig. 20) and APSD (APSD illustrated in Fig. 9) ([0087], [0126], Fig. 10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a clock signal information and APSD as taught by Kobayashi into the optical transmission system of Sekiya as modified by Maxham so that the first optical supervisory signal could be generated a clock signal information over an optical link to check the continuity of optical transmission line , the optical-supervisory-signal reception unit could be performed an operation for extracting the clock information from the first optical supervisory signal, and could be determined whether or not the optical transmission line is optically continuous, based on whether or not the clock information being extracted from the first optical supervisory signal, and the supervisory signal generation unit , the optical supervisory signal unit could be activated an APSD function when the optical supervisory signal reception unit determines that the clock information cannot be extracted from the first supervisory

signal. In this configuration the system would have accurate and high efficiency optical data transmission (Kobayashi, [0014])

(2) Regarding claim 4:

Note the discussion in claim 3 and claim 1. Sekiya teaches first and second optical supervisory signal and Maxham teaches the third optical supervisory signal. Both Sekiya and Maxham do not teach first clock signal information, second clock information and APSD.

However, Kobayashi in the same field of endeavor teaches first clock signal Information (CLK near 202 OSC), and second clock information (CLK near 106 OSC) (CLK illustrated in Fig. 20) and APSD (APSD illustrated in Fig. 9) ([0087], [0126], Fig. 10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a first clock signal information, a second clock information signal and APSD as taught by Kobayashi into the optical transmission system of Sekiya as modified by Maxham so that the first optical supervisory signal could be generated a first clock signal information over an optical link to check the continuity of optical transmission line , the optical-supervisory-signal reception unit could be performed an operation for extracting the second clock information from the third optical supervisory signal, and could be determined whether or not the second optical transmission line is optically continuous, based on whether or not the second clock

information being extracted from the third optical supervisory signal, and the supervisory signal generation unit , the optical supervisory signal unit could be activated an APSD function when the optical supervisory signal reception unit determines that the second clock information cannot be extracted from the first supervisory signal. In this configuration the system would have accurate and high efficiency optical data transmission (Kobayashi, [0014])

Response to Arguments

5. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the references (Sekiya et al. (US 7039325 B2, Kobayashi et al. (US 2002/0114060 A1)) are added for the new ground of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiry

18. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen, can be reached at (571) 272-7772.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

Application/Control Number: 10/808,606

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(703)872-9314 (for Technology Center 2600 only)

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09/25/2007

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